

**PROGRAM YEAR 2007-2008**

**PERFORMANCE REPORT**

**ON**

**CAREER AND TECHNICAL EDUCATION**  
**IN NEW HAMPSHIRE**

**New Hampshire Department of Education**

## **I. Implementation of State Leadership Funds**

### **Required Uses of Funds:**

#### **Assessing Career and Technical Education Programs**

The New Hampshire Department of Education (hereafter Department) annually evaluates its regional, secondary career and technical education (CTE) centers on a rotating, five-year cycle. Three center and program evaluations were completed during Program Year 2007-08 (PY 07-08): the Hugh Gallen Regional Vocational Center in Littleton, New Hampshire, the Region 9 Vocational Technical Center in Wolfeboro, New Hampshire, and the White Mountain Regional Center in Whitefield, New Hampshire. The programs at these centers received numerous commendations regarding their linkages and articulation agreements with postsecondary institutions, program curricula, and certifications. The evaluations yielded no deficiencies.

Evaluations of postsecondary programs also revealed no deficiencies. Postsecondary programs are evaluated on an annual basis. The past year's evaluations brought commendations for excellent collaboration and for work in aligning secondary and postsecondary curricula.

#### **Developing, Improving, or Expanding the Use of Technology**

The Department gained legislative approval to provide grants for eligible recipients to develop science, technology, engineering, and mathematics (STEM) programs of instruction. These funds were made available to match local funds in developing programs in middle schools, comprehensive high schools, and CTE centers. Allowable uses of these grants expanded to include middle schools, to support these schools in providing career awareness in the STEM career cluster. These funds will be available for grants in the fiscal year starting July 1, 2008.

The State again granted funds to create pre-engineering programs at the secondary level. During PY 07-08, a total of \$50,000 was granted on a matching basis to Dover High School to get a pre-engineering program off the ground.

#### **Offering Professional Development**

The Department sponsored three training sessions to assist secondary centers and postsecondary institutions in the development of programs of study, known in

New Hampshire as Career Pathway Plans of Study (CPPOS). Session participants included the following:

- *Secondary*: academic guidance counselors, instructors, administrators, career guidance counselors, and other appropriate staff;
- *Postsecondary*: professors, vice presidents, administrators, and other appropriate staff.

Follow-up technical assistance was provided to educators and employers affiliated with each CTE program, center, and/or college. The assistance focused on completion of the CPPOS's. When completed, these documents were posted on the Department's web page for other partnerships to use for reference purposes when developing their own CPPOS's.

The State sponsored local planning and implementation support for the Math-in-CTE model during Program Year 2008. From December 10 to 12, 2007, and again from March 3 to 7, 2008, the State conducted Jumpstart Training for a team of instructors to design year-long professional development in use of the model. Team members attended national workshops where they received training in designing a year-long series of professional development workshops to strengthen math learning in CTE programs. The team elected to focus professional development and support on two areas: building trades and automotive programs. The professional development was planned for delivery during Program Year 2009.

From May 13 to 15, 2008, a state team received training in the management and supervision of professional development for local Math-in-CTE teams. The training was provided by the National Research Center for Career and Technical Education (NRCCTE). The team included a mathematics curriculum content consultant, CTE content specialists, and the project coordinator.

Three professional development sessions on child labor law were provided to educators and employers during the year. The focus of the sessions was to ensure that employers and schools provide safe and legally compliant work-based learning experiences, both paid and unpaid, for students.

### **Integrating Academics with Career and Technical Education**

Beginning in August of 2007, New Hampshire joined with Vermont, Maine, and Rhode Island to form a New England Consortium on High School Redesign. This group, including SEA Deputies, State Division Directors, State CTE Directors, and SEA high school redesign consultants, met regularly and began implementing a plan to:

- Prepare all students for 21<sup>st</sup> century skills upon high school graduation;
- Require high standards, quality instruction and assessment, personalized organizational structures, committed leadership, and clear policy.

This collaborative model for high school redesign was intended to be portable and replicable for other multi-state efforts, thus benefiting secondary students across the nation.

Technical assistance and professional development activities in the form of summits, forums, meetings, and written guidance were provided throughout the year in the area of high school redesign. These efforts improved collaboration among various groups of educators, including academic and CTE educators. Professional development activities included training in personalized and applied learning for high school students.

The Math-in-CTE model developed by the NRCCTE provides intensive, year-long professional development to identify and strengthen the academic content embedded in CTE curriculum. Local teams of math and CTE instructors met four times throughout the year to learn methods of integrating math content and CTE curriculum. These local teams developed lesson plans that maximize the math concepts in CTE and connect these concepts to practical applications in CTE.

In June of 2008, the Department began a project to crosswalk New Hampshire's science curriculum framework with CTE program competencies. All science grade span expectations will be crosswalked with CTE program competencies by the end of calendar year 2009.

### **Exposing Special-Population Students to High-Skill, High-Wage Occupations**

The Department informed eligible recipients about continuing education opportunities for secondary CTE center administrators and local committees. These communications included the following:

- Summer Institute on developing a multicultural curriculum, inclusive of non-traditional and other special population categories;
- Women Tech Portal and Digital Library tools for educators to recruit and retain more women in the technology classroom;
- Making Diversity Count: making classrooms a respectful and inclusive place;
- STEM Equity grant.

Technical assistance was provided in two additional areas:

- Secondary CTE directors received the most recent data on high-wage, high-demand, and high-skill occupations in New Hampshire with guided comments relative to the creation and evaluation of new and existing programs.

- The Manchester Community College Equity Committee members worked with Department staff to bring more focus to the committee's efforts and to increase links to high school CTE center staff.

## **Supporting Partnerships**

Seven partnerships were supported by the Department during the year:

- An Advisory Council on Career and Technical Education was convened in the fall of 2007, bringing together secondary and postsecondary educators, employers, community based organizations, students, parents, Tech Prep consortia, and other stakeholders. The council provided a broad range of input and collaboration to ensure that CTE meets the expectations of all stakeholders in New Hampshire.
- The Department began working with the New Hampshire Department of Resources and Economic Development to draft legislation for a statewide manufacturing advisory board. This board, to be established during PY 09, will advise the Department on expanding manufacturing programs.
- The Department directly supports a Pre-Engineering Technical Advisory Council (PETAC). This governor-appointed employer/superintendent council advises the Department on establishing high quality engineering curricula in the state. PETAC is responsible for approving the quality of the curricula to be used by local programs. Engineering by Design and Project Lead the Way curricula have been reviewed and approved by the Council.
- New Hampshire had four statewide Tech Prep consortia that helped secondary CTE centers build, expand, or update curricula in their assigned career clusters. These consortia were composed of employers, community based organizations, parents, and educators.
- The completed CPPOS's were presented to the New Hampshire Jobs Cabinet. This cabinet includes commissioners of all major state agencies involved with employment, economic development, and the emerging workforce. Upon review of New Hampshire's CPPOS materials, all members felt these plans were valuable tools connecting employers with schools and colleges.
- The Department participated in two employer expositions. The focus of the expositions was to connect with businesses and make them aware of the career based programs offered in New Hampshire CTE centers.
- The Department, in partnership with the New Hampshire Department of Resources and Economic Development, sponsored an employer/educator breakfast to examine manufacturing needs in the state. Manufacturing in New Hampshire was characterized as specialized in niche markets. This specialization was seen as an opportunity to place students in quality jobs

because it enables companies to offer high-wage, high-skill, and/or high-demand occupations.

### **Serving Individuals in State Institutions**

A Request for Proposals was released to fund CTE projects at state institutions, including both correctional facilities and institutions serving individuals with disabilities. Three grants were released, all to correctional facilities. One of the recipients was a returning applicant. A second grantee was a new applicant, focusing on employment that could sustain the inmates once released from confinement. The third grant went to the New Hampshire State Prison for Women and focused on training for occupations that provide livable incomes for women exiting the correctional system.

The Department also advocated for quality CTE through representation on two panels:

- The legislatively created Interagency Coordinating Council for Women Offenders;
- An ad hoc committee formed by the United Way and Goodwill Industries, again focusing on high-wage, high-skill occupational opportunities.

### **Supporting Programs for Special Populations**

The criteria for evaluating proposals to conduct state institutions projects emphasized supports for special populations, including:

- Focusing on non-traditional training;
- Supporting the English Language Learners population;
- Identifying opportunities for high-wage, high-skill occupations upon release from incarceration.

### **Offering Technical Assistance to Eligible Recipients**

Early in the Program Year, a Follow-the-Child Leadership Institute was provided by the Department to support local implementation of the Follow the Child Initiative of Education Commissioner Lyonel Tracy<sup>1</sup>. In response to feedback from participants at the Institute, a follow-up conference—Lead the Learning Conference—assisted Institute participants in sharing strategies and processes for moving beyond data collection to data use. Peer presentations focused on data use and analysis, use of data tools, use of intervention strategies, systems models,

---

<sup>1</sup> The Follow-the-Child initiative in New Hampshire captures and expands upon the spirit of No Child Left Behind and the urgency to move each child to academic proficiency and beyond. Each child is supported in four domains: personal, social, physical, and academic. The initiative promotes personalized learning that plots a track toward proficiency and defines the necessary support systems for each child.

and team leadership. Participants had the opportunity to interact with the presenters during break-out sessions and also to learn about resources that the Department can provide to districts. Opportunities for consultation on challenges and successes in implementing the New Hampshire Literacy Action Plan were also provided.

The Department helped staff and an administrator at the Manchester Community College in developing strategies and methods for improving CTE for non-traditional programs at the college. Topics included: resources, data to determine proportionality within the college's CTE programs, mentoring, job placement, advisory committee composition, the CPPOS, linking with secondary CTE centers, and partnering with secondary CTE centers to work with middle schools. Guidance for evaluations of the faculty and campus were shared and discussed. A marketing plan was also developed as a result of the assistance.

Technical assistance on the Perkins IV accountabilities was provided for secondary CTE centers. The assistance was part of the orientation that center staff received on developing local five-year plans. Training on revisions to the accountability system was provided at two locations in the State.

## **Permissible Activities:**

### **Guidance and Counseling Assistance**

Counselors in CTE and academic guidance received training in the areas of personalized student needs, academic and career planning, and applied learning. The training focused on improving career and academic counseling programs across New Hampshire, as well as closer working relationships between academic and career guidance counselors.

### **Establishing Articulation Agreements and Supporting Student Transitions from Postsecondary, Two-year Programs to Baccalaureate Programs**

The Career Pathway Plan of Study (CPPOS) supported both articulation agreements and transitions from two-year colleges to baccalaureate institutions.

- Articulations between secondary and postsecondary programs were part of the process for developing the CPPOS. The State continued to have as a goal that all secondary CTE programs articulate to two- and four-year institutions.
- Dual enrollment opportunities were highlighted in the development of the CPPOS. Programs could yield as many as 12 college credits in some instances. Promotion of the dual enrollment opportunities has been an ongoing process.

- The CPPOS's also guided students to the two- and four-year programs that continue the pathway that started in high school. The CPPOS's showed secondary students the multiple exit points from CTE instruction leading to high-skill, high-wage, and/or high-demand employment.

### **Supporting Programs that Address All Aspects of Industry**

State requirements for secondary CTE program certification changed slightly during the Transition Year, but the requirement to address all aspects of industry remained unchanged. All programs were reviewed for this curricula, whether they were new programs or reviewed as part of the five-year evaluations of secondary CTE centers and their programs. In line with this requirement, Tech Prep directors assured that all aspects of industry became part of program curricula when identifying programs that lead to new and emerging occupations.

### **Supporting Family and Consumer Sciences**

During the summer of 2007, workshops were convened to orient middle school Consumer and Family Science instructors to the *Foundations of Work and Family* curriculum. This curriculum prepares students to acquire personal skills and plan ways to transfer those skills to the workplace, investigate and assume appropriate individual and family roles, understand and apply concepts of balancing work and family, and acquire skills and attitudes that lead students to contribute to the good of the community and society.

### **Supporting Entrepreneurship Education and Training**

Staff from the Department partnered with a variety of staff from other public and private organizations in delivering an Entrepreneurship Week conference. The event lasted for a full week and took place at a number of locations around the State. Organizers included the University System of New Hampshire, the U.S. Small Business Administration, the New Hampshire Small Business Administration, the Knowledge Institute, and the New Hampshire Department of Education.

### **Improving Data Systems on Academics and Employment**

An action plan was developed to improve the collection of Tech Prep data. The following definition of a Tech Prep concentrator was developed:

A student who has completed greater than 50% of the required sequence of instruction in his/her Tech Prep program and is

enrolled in the second half of the program as of October 1 or March 1.

The outlines of a new data system for tracking Tech Prep students from secondary to postsecondary CTE were developed in consultation with the New Hampshire Office of Information Technology.

## **II. Progress in Developing and Implementing Technical Skills Assessments**

Although New Hampshire had a system for assessing students' technical skills attainment by the end of the Program Year, a plan was undertaken to significantly improve the quality of assessments. The assessments in place at the end of the year could be characterized as a system of state-approved competencies that are used locally to assess student attainment of the competencies. Using national, industry based standards as the starting point, the competencies were developed with input from secondary instructors.

Secondary assessments: By the close of PY 07-08, all secondary students in state-approved programs were assessed for their attainment of technical skills. All CTE programs in New Hampshire had unique sets of technical skill core competencies and all students in these programs were assessed for their attainment of these competencies. All secondary programs are identified in the attached chart.

The assessments used at the end of PY 07-08 needed closer alignment with industry standards and improvements in reliability. Industry standards were initially consulted when secondary instructors began identifying program competencies, but industry did not verify these competencies once the instructors had compiled the competency lists. The system of assessments in place at the end of the year was relatively unreliable because instructors were using their own interpretations of competencies and their rubrics when conducting the assessments; assessments conducted by instructors in one CTE center did not necessarily yield the same results as those conducted by instructors in another center.

At the end of PY 07-08, New Hampshire had adopted a plan to improve upon the existing system of secondary skill assessments. The following chart details the plan by School Year:

<b>School Year</b>	<b>Action Step</b>
2008-09	Pilot two industry based certification assessments.
2009-10	Fully implement the two assessments piloted in 2008-09 and pilot one additional assessment.
2010-11	Fully implement the three assessment instruments to be piloted in 2009-10 and pilot one additional assessment.
2011-12	Fully implement four assessment instruments from the previous year and pilot one additional assessment.

Postsecondary assessments: The New Hampshire Five-Year State Plan reported that postsecondary assessments of technical skills attainment will continue to be measured by program completion.

Since the Plan was approved, new developments have taken place that will be evident on the 2008-2009 CAR. Postsecondary assessments will include results of the technical skill assessment for Nursing, the NCLEX, reported as the total number of students that took the exam and the number of students who passed the exam. Results from an additional technical skill assessment will be included in the 2009-2010 CAR.

### **III. Implementation of State Improvement Plans**

No State Improvement Plan was needed because New Hampshire's statewide performance did not fall short of the 90% threshold on any indicator.

### **IV. Implementation of Local Program Improvement Plans**

At the close of PY 07-08, five secondary eligible recipients did not perform at the 90%-of-goal level on one or more performance indicator. Of the three indicators measured during the year, performance shortfalls happened on the two measures of academic attainment: English/language arts and mathematics. No center fell short of the 90%-of-goal threshold for graduation rate.

All of the five centers that did not perform at the 90%-of-goal level were required to submit Targeted Improvement Plans to be implemented during PY 08-09.

### **V. Tech Prep**

Tech Prep funds were granted out on a non-competitive, formula basis. Grants were allocated on the basis of work that each consortium was to complete for the next year. The work to be accomplished during the year was negotiated between the State and the consortia.

Four consortia received Tech Prep funds. The following chart identifies these consortia and their respective grant amounts:

<b>Consortium</b>	<b>Grant Amount</b>
North Country Tech Prep Partnership	\$112,000.00
Eastern Tech Prep Partnership	\$112,000.00
Southern New Hampshire School-to-Work Partnership.	\$112,000.00
Information Technology and Manufacturing Partnership	\$112,000.00

## Secondary CTE Programs School Year 2007-2008

Career & Technical/ Tech Prep Programs		Schools																												Programs Tech Prep	
		Berlin	Bradford VT	Brattleboro VT	Claremont	Concord	Conway	Derry	Dover	Exeter	Hartford VT	Hudson	Keene	Laconia	Landown	Littleton	Manchester	Milford	Nashua	Newport	Peterborough	Plymouth	Portsmouth	Rochester	Salem	Somersworth	Tilton	Whitefield	Wolfeboro		
010000	AGRICULTURE, GENERAL																											X	1		
010101	AG BUSINESS & MANAGEMENT							X			X																		2	1	
010201	AGRICULTURAL MECHANICS									X			X												X		X		4	1	
010601	HORTICULTURE		X				X	X			X	X		X		X			X				X		X	X	X		12	5	
010605	LANDSCAPING & GRNDSKPING									X																			1		
010901	ANIMAL SCIENCES, GENERAL									X			X						X								X		4	1	
019999	AGRICULTURE OPERATIONS								X																				1	1	
030101	NATURAL RESOURCES	X					X	X		X			X						X							X	X		8	3	
030511	FORESTRY TECHNOLOGY		X							X																			2	1	
090702	DIGITAL COMMUNICATIONS	X							X											X					X				4	1	
100202	RADIO & TV BROADCASTING					X						X			X	X	X				X		X					X	8	1	
100305	GRAPHIC ARTS	X				X				X			X		X	X	X					X	X						9	2	
110201	COMPUTER PROGRAMMING								X			X					X												3		
110301	DATA PROCESSING TECH									X																			1		
110801	WEB PAGE DESIGN		X																										1		
110899	COMPUTER SOFTWARE APPS																						X						1		
110901	COMPUTER SYS NETWORKING			X	X		X	X								X	X										X		7	1	
120401	COSMETOLOGY	X							X		X				X		X	X											7		
120500	COOKING & CULINARY ARTS	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X		X	X	X		X	X		X	X		21	13	
120504	RESTAURANT MANAGEMENT																					X							1		
131206	TEACHER EDUCATION																					X				X			2	2	
131210	EARLY CHILDHOOD EDUCATION	X	X	X	X	X	X			X	X	X	X	X	X	X	X		X		X	X	X	X	X		X		20	18	
140101	ENGINEERING TECHNOLOGY	X					X	X	X	X	X		X		X	X	X	X	X	X					X				14	7	
150405	ROBOTIC TECHNOLOGY																								X				1		
151201	COMPUTER ENGINEERING																			X									1		
151301	DRAFTING, GENERAL	X					X	X				X				X		X			X	X	X	X					10	1	
261201	BIOTECHNOLOGY								X								X	X											3	3	
439999	SECURITY & PROTECTIVE SVC		X	X		X									X														4	3	
460201	CARPENTRY/CARPENTER	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X		@	X	X		X	X		X		22	12	
460302	ELECTRICIAN		X					X	X						X		X												5	5	
460401	BUILDING MAINTENANCE						X																						1		
460599	PLUMBING/WATER SUPPLY				X								X			X						X							4	4	
470103	COMMUNICATIONS SYSTEMS										X																		1		
470104	COMPUTER INSTALL/REPAIR									X					X								X	X			X		5		
470105	INDUSTRIAL ELECTRONICS										X																		1		
470201	HEATING/REFRIGERATION						X									X		X											3		
470302	HEAVY EQUIP MAINTENANCE		X																										1	1	
470603	AUTOMOTIVE BODY REPAIR							X		X					X														3	1	
470604	AUTOMOTIVE MECHANICS	X	X	X		X	X	X	X	X	X	X	X		X	X		X	X	@	X	X	X	X	X		X		22	13	
480503	MACHINE SHOP TECHNOLOGY			X	X		X					X	X				X	X					X						8	3	
480508	WELDING TECHNOLOGY	X						X		X	X																		4		
480703	CABINET MAKING/MILLWORK						X													X									2		
500101	VISUAL & PERFORMING ARTS			X																									1		
500699	FILM/VIDEO/PHOTO ARTS			X			X			X										X									4	1	
519999	HEALTH PROFESSIONS	X		X		X	X	X		X	X	X	X	X		X	X		X	X	X	X		X	X			X	19	12	
520302	ACCOUNTING TECHNICIAN	X			X			X				X	X			X		X	X	X				X	X		X	X	13	12	
520407	BUSINESS/TECH/DATA ENTRY			X						X													X						3		
520408	GENERAL OFFICE	X	X				X	X	X			X		X		X	X	X		X	X		X	X	X		X	X	17	3	
520801	FINANCE, GENERAL							X		X	X					X		X					X						6	4	
520803	BANKING & FINANCIAL SVC			X							X																		2		
520903	TRAVEL & TOURISM SERVICES																	X											1		
520904	LODGING MANAGEMENT						X	X	X	X	X			X	X	X	X		X	X			X	X			X	X	2	1	
521899	GENERAL MARKETING						X	X	X	X	X			X	X	X	X		X	X			X	X					X	16	
Total Programs by School		10	11	14	7	9	11	16	13	12	15	17	14	10	5	9	19	12	19	9	12	6	6	13	14	12	2	10	12	319	
Total Articulated Programs		5	8	0	4	5	2	8	4	6	9	10	6	10	1	5	11	6	8	4	3	2	2	5	1	4	1	3	4		137

X = New Program 2007-2008

Registered Apprenticeship

@ Indicates a New Ipswich Program

Tech Prep Articulated Program

& Indicates a Jaffrey Program